FIG.1

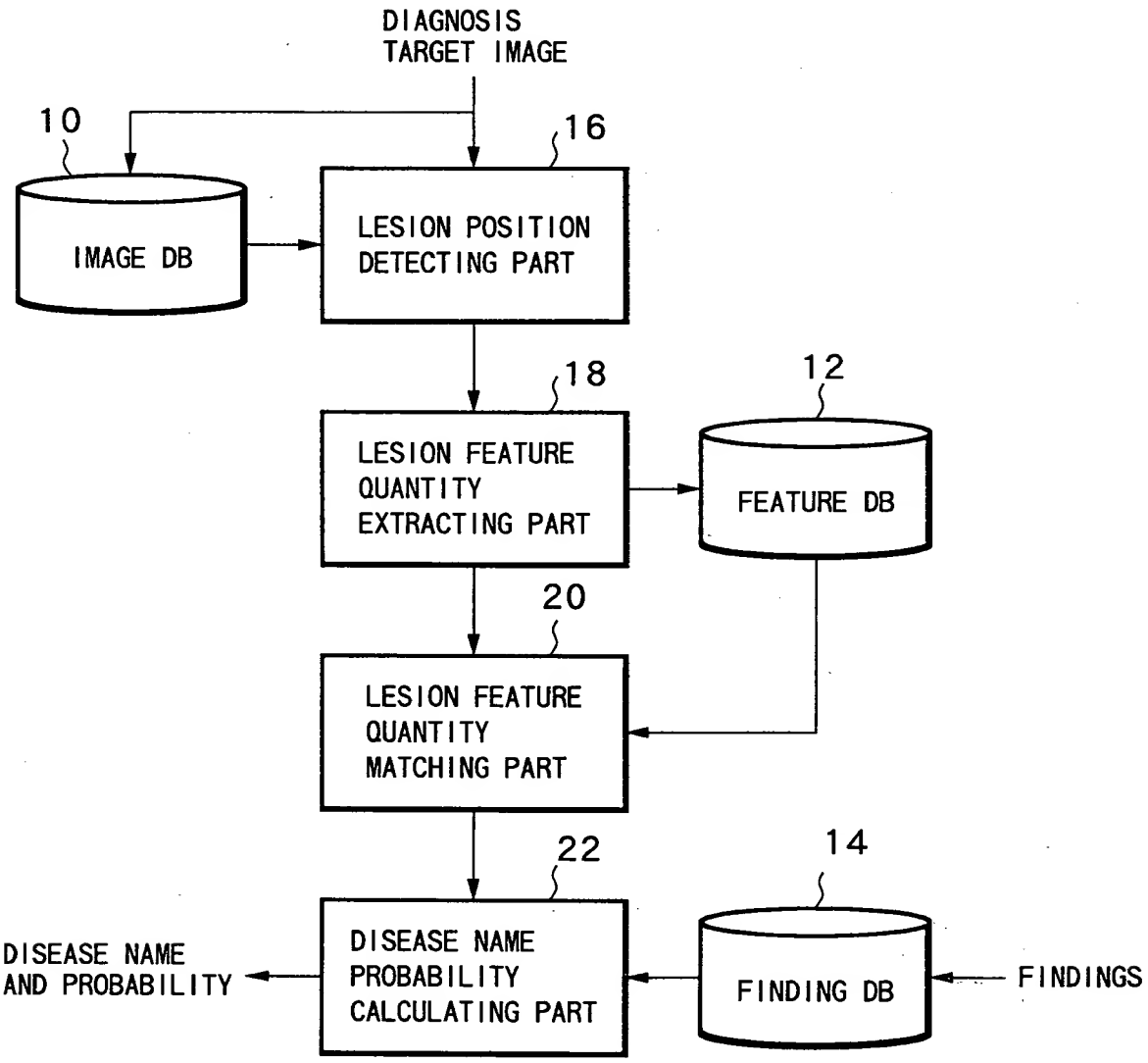
DIAGNOSIS
TARGET IMAGE
10
16
IMAGE DB
LESION POSITION
DETECTING PART
18
12
LESION FEATURE
QUANTITY
EXTRACTING PART
FEATURE DB
20
LESION FEATURE
QUANTITY
MATCHING PART
22
14
DISEASE NAME
AND PROBABILITY
DISEASE NAME
PROBABILITY
CALCULATING PART
FINDING DB
FINDINGS

FIG.2

PATIENT ID	INSPECTION ID	IMAGE FILE NAME
0001	01	xxxx. dcm
0002	02	yyyy. dcm
....	..	.....

FIG.3

TARGET SITE	INSPECTION DATE	FEATURE DATE
BRAIN	2000/11	aaaaaaaa
CHEST	2000/11	bbbbbbbb
ABDOMEN	2000/11	cccccccc
HAUNCHES	2000/11	dddddddd
LEG	2000/11	eeeeeeee
...	....	.....

FIG.4

PATIENT ID	INSPECTION ID	ASSIGNED DOCTOR NAME	FINDINGS
0001	01	xxxx	aaaaaaaa
0002	02	yyyy	bbbbbbbb
....	..	....	....

FIG.5

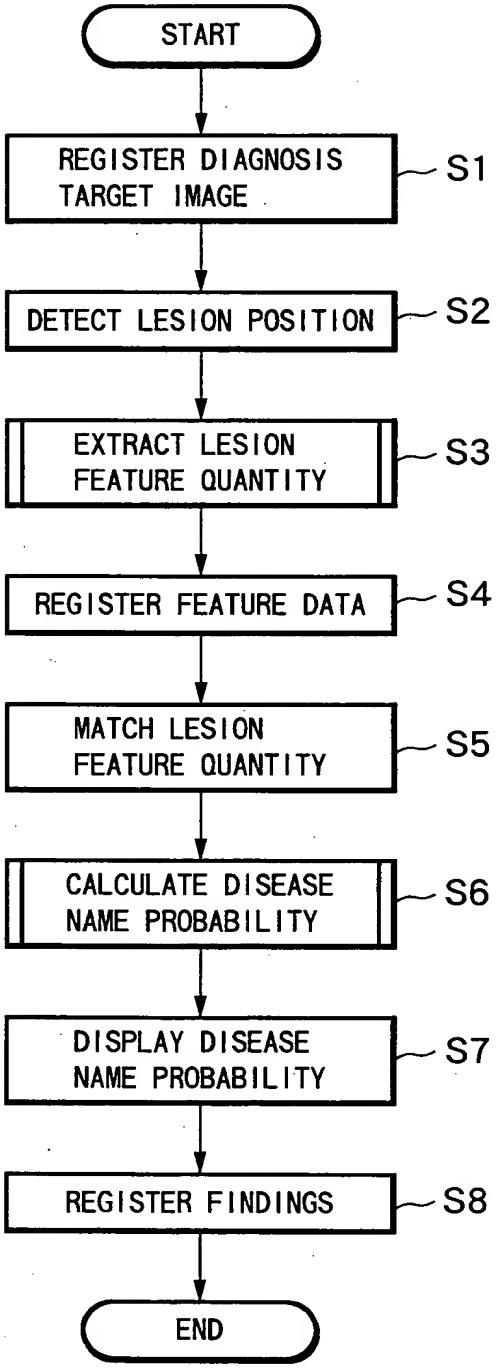
START
REGISTER DIAGNOSIS TARGET IMAGE
S1
DETECT LESION POSITION
S2
EXTRACT LESION FEATURE QUANTITY
S3
REGISTER FEATURE DATA
S4
MATCH LESION FEATURE QUANTITY
S5
CALCULATE DISEASE NAME PROBABILITY
S6
DISPLAY DISEASE NAME PROBABILITY
S7
REGISTER FINDINGS
S8
END

FIG.6

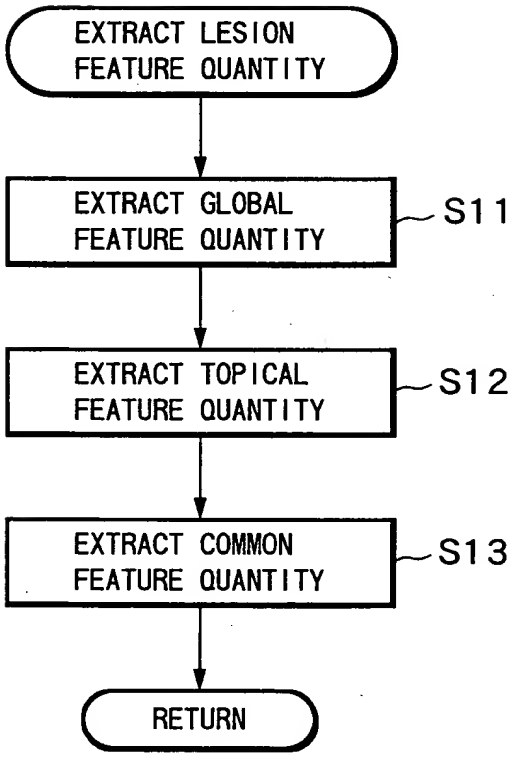
EXTRACT LESION FEATURE QUANTITY
EXTRACT GLOBAL FEATURE QUANTITY
S11
EXTRACT TOPICAL FEATURE QUANTITY
S12
EXTRACT COMMON FEATURE QUANTITY
S13
RETURN

FIG.7

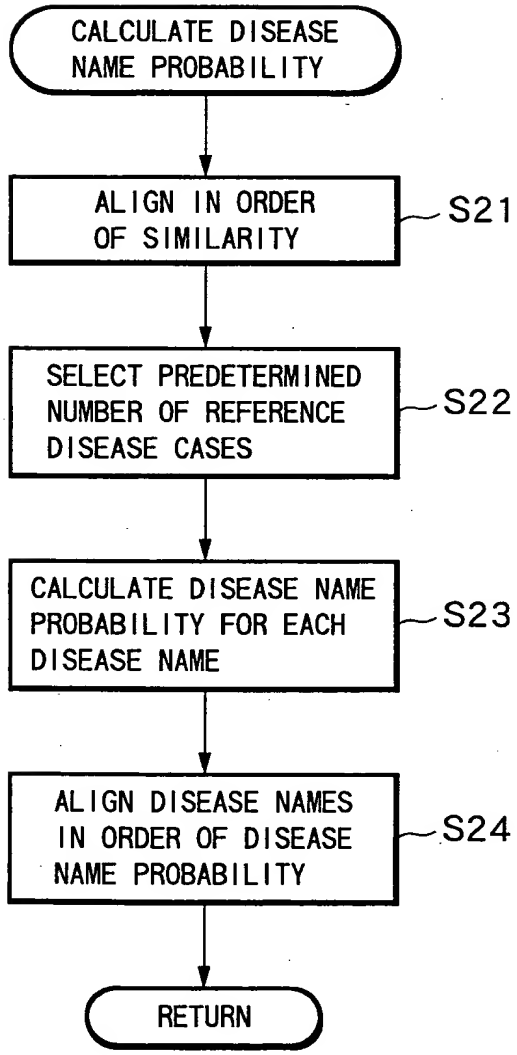
CALCULATE DISEASE NAME PROBABILITY
ALIGN IN ORDER OF SIMILARITY
S21
SELECT PREDETERMINED NUMBER OF REFERENCE DISEASE CASES
S22
CALCULATE DISEASE NAME PROBABILITY FOR EACH DISEASE NAME
S23
ALIGN DISEASE NAMES IN ORDER OF DISEASE NAME PROBABILITY
S24
RETURN

FIG.8

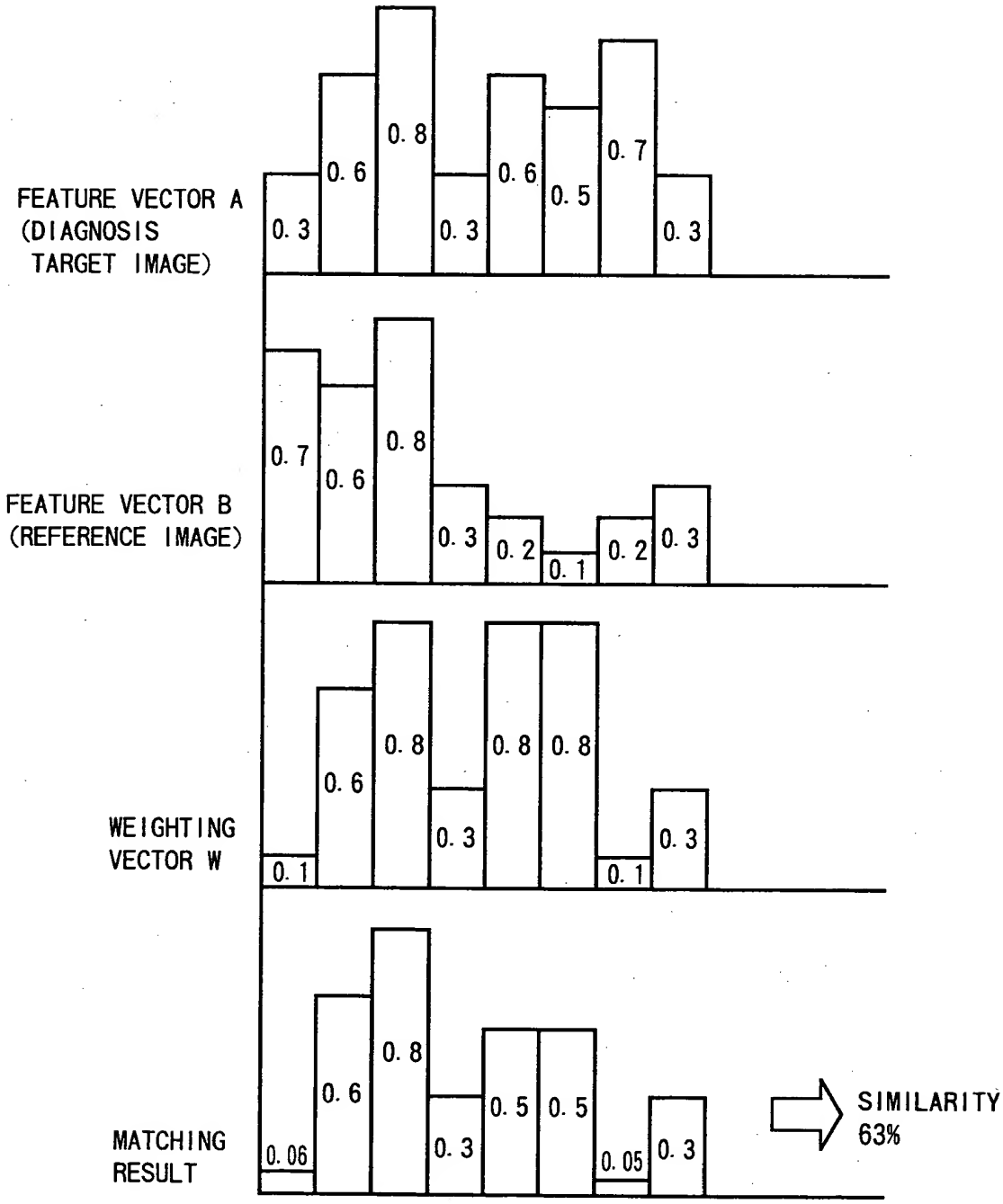
FEATURE VECTOR A
(DIAGNOSIS
TARGET IMAGE)
0.3
0.6
0.8
0.3
0.6
0.5
0.7
0.3
FEATURE VECTOR B
(REFERENCE IMAGE)
0.7
0.6
0.8
0.3
0.2
0.1
0.2
0.3
WEIGHTING
VECTOR W
0.1
0.6
0.8
0.3
0.8
0.8
0.1
0.3
MATCHING
RESULT
0.06
0.6
0.8
0.3
0.5
0.5
0.05
0.3
SIMILARITY
63%

FIG.9

ORGAN	VOLUME	AVERAGED CT VALUE	TEXTURE	SPHERICAL DEGREE	•••
BRAIN	W_{11}	W_{12}	W_{13}	W_{14}	•••
LUNG	W_{21}	W_{22}	W_{23}	W_{24}	•••
LIVER	W_{31}	W_{32}	W_{33}	W_{34}	•••
•••	•••	•••	•••	•••	•••

FIG.10

ORDER	DISEASE NAME	PROBABILITY
1	DIEASE NAME A	60%
2	DIEASE NAME B	22%
3	DIEASE NAME C	18%

FIG.11

ORDER	INSPECTION ID	SIMILARITY	DISEASE NAME
1	INSPECTION 5	90%	DISEASE NAME A
2	INSPECTION 2	87%	DISEASE NAME B
3	INSPECTION 1	81%	DISEASE NAME A
4	INSPECTION 7	70%	DISEASE NAME C
5	INSPECTION 9	69%	DISEASE NAME A
6	INSPECTION 8	33%	DISEASE NAME D
	.....		